

SEQUENCE LISTING

<110> Cincinnati Children's Hospital Medical Center
Robbins, Jeffrey

<120> A ROBUST, INDUCIBLE CARDIAC PREFERRED
EXPRESSION SYSTEM FOR TRANSGENESIS

<130> CHM02 GN053

<150> 60/393,525
<151> 2002-07-03

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<170> FastSEQ for Windows Version 4.0

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<220>
<223> Sequence inserted in promoter.

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<210> 3
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequence excised from promoter.

<400> 3
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<210> 4
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequence inserted into promoter with TetO binding
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<212> DNA
<213> Mus musculus

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<222> (21)...(602)
<223> ELC1-a

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 Thr Ala Lys Pro Ala Ala Ala Pro Ala Pro Ala Ser Ala Ala Pro
 15 20 25

gag ccc ctc aag gac tct gcc ttt gac cca aag agt gtg aag ata gac 149
 Glu Pro Leu Lys Asp Ser Ala Phe Asp Pro Lys Ser Val Lys Ile Asp
 30 35 40

ttc agt gct gac cag atc gaa gaa ttc aaa gag gcc ttt tca ttg ttt 197
 Phe Ser Ala Asp Gln Ile Glu Glu Phe Lys Glu Ala Phe Ser Leu Phe
 45 50 55

gac cgg act cca acg gga gag atg aag atc acc tac ggg cag tgt ggg 245
 Asp Arg Thr Pro Thr Gly Glu Met Lys Ile Thr Tyr Gly Gln Cys Gly
 60 65 70 75

gac gtg ctg cgg gcc ctg ggc cag aac ccc acc aac gca gag gtg ctg 293
 Asp Val Leu Arg Ala Leu Gly Gln Asn Pro Thr Asn Ala Glu Val Leu
 80 85 90

cgc gtt ttg ggc aaa ccc aag cct gaa gag atg agt tcc aag aca ctg 341
 Arg Val Leu Gly Lys Pro Lys Pro Glu Glu Met Ser Ser Lys Thr Leu
 95 100 105

gac ttc gag atg ttc ctg ccc atc ctg caa cac atc tcc cgc aac aag 389
 Asp Phe Glu Met Phe Leu Pro Ile Leu Gln His Ile Ser Arg Asn Lys
 110 115 120

gag cag ggc acc tat gag gac ttc gtg gag ggg ctg cgg gtc ttt gac 437
 Glu Gln Gly Thr Tyr Glu Asp Phe Val Glu Gly Leu Arg Val Phe Asp
 125 130 135

aaa gaa agc aac ggc aca gtc atg ggt gcc gag ctt cgg cat gtc ctt 485
 Lys Glu Ser Asn Gly Thr Val Met Gly Ala Glu Leu Arg His Val Leu
 140 145 150 155

gcc acc ctg gga gag aag atg agc gag gca gag gtg gag cag ctg ttg 533
 Ala Thr Leu Gly Glu Lys Met Ser Glu Ala Glu Val Glu Gln Leu Leu
 160 165 170

tct ggg cag gag gat gcc aat ggc tgc atc aac tat gaa gcc ttt gtc 581
 Ser Gly Gln Glu Asp Ala Asn Gly Cys Ile Asn Tyr Glu Ala Phe Val
 175 180 185

aag cac atc atg tct ggg taa agcacgttcc tccagggtgg tcgac 627
 Lys His Ile Met Ser Gly *
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<210> 6
 <211> 193
 <212> PRT

<213> Mus musculus

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35 40 45
Ile Glu Glu Phe Lys Glu Ala Phe Ser Leu Phe Asp Arg Thr Pro Thr
50 55 60
Gly Glu Met Lys Ile Thr Tyr Gly Gln Cys Gly Asp Val Leu Arg Ala
65 70 75 80
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85 90 95
Pro Lys Pro Glu Met Ser Ser Lys Thr Leu Asp Phe Glu Met Phe
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Leu Pro Ile Leu Gln His Ile Ser Arg Asn Lys Glu Gln Gly Thr Tyr
115 120 125
Glu Asp Phe Val Glu Gly Leu Arg Val Phe Asp Lys Glu Ser Asn Gly
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145 150 155 160
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<213> Mus musculus

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<222> (33)...(1295)

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Thr Ala Phe Ala Glu Ser Cys Lys Pro Val Gln Gln Pro Ser Ala Phe
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Gly Ser Met Lys Val Ser Arg Asp Lys Asp Gly Ser Lys Val Thr Thr
25 30 35

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Val Val Ala Thr Pro Gly Gln Gly Pro Asp Arg Pro Gln Glu Val Ser
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Tyr Thr Asp Thr Lys Val Ile Gly Asn Gly Ser Phe Gly Val Val Tyr		
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caa gcc aaa ctt tgt gat tct gga gaa ctg gtt gcc atc aag aaa gtt		293
Gln Ala Lys Leu Cys Asp Ser Gly Glu Leu Val Ala Ile Lys Lys Val		
75	80	85
cta cag gac aag cga ttt aag aac cga gag ctc cag atc atg aga aag		341
Leu Gln Asp Lys Arg Phe Lys Asn Arg Glu Leu Gln Ile Met Arg Lys		
90	95	100
cta gac cac tgt aac ata gtc cga ctg cgg tat ttc ttc tac tcg agt		389
Leu Asp His Cys Asn Ile Val Arg Leu Arg Tyr Phe Tyr Ser Ser		
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ggt gag aag aaa gat gag gtc tac ctt aac ctg gtg ctg gac tat gtt		437
Gly Glu Lys Lys Asp Glu Val Tyr Leu Asn Leu Val Leu Asp Tyr Val		
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ccg gag aca gtg tac aga gtc gcc aga cac tat agt cga gcc aag cag		485
Pro Glu Thr Val Tyr Arg Val Ala Arg His Tyr Ser Arg Ala Lys Gln		
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aca ctc cct gtg atc tat gtc aag ttg tat atg tat cag ctg ttc aga		533
Thr Leu Pro Val Ile Tyr Val Lys Leu Tyr Met Tyr Gln Leu Phe Arg		
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agt cta gcc tat atc cat tcc ttt gga atc tgc cat cga gac att aaa		581
Ser Leu Ala Tyr Ile His Ser Phe Gly Ile Cys His Arg Asp Ile Lys		
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cca cag aac ctc ttg ttg gat cct gat aca gct gta tta aaa ctc tgt		629
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Asp Phe Gly Ser Ala Lys Gln Leu Val Arg Gly Glu Pro Asn Val Ser		
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Tyr Ile Cys Ser Arg Tyr Tyr Arg Ala Pro Glu Leu Ile Phe Gly Ala		
220	225	230
act gat tac acg tcc agt ata gat gta tgg tct gca ggc tgt gtg ttg		773
Thr Asp Tyr Thr Ser Ser Ile Asp Val Trp Ser Ala Gly Cys Val Leu		
235	240	245
gct gaa ttg ttg cta gga caa cca ata ttt cct ggg gac agt ggt gtg		821
Ala Glu Leu Leu Leu Gly Gln Pro Ile Phe Pro Gly Asp Ser Gly Val		
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gat cag ttg gtg gaa ata ata aag gtc cta gga aca cca aca agg gag		869
Asp Gln Leu Val Glu Ile Ile Lys Val Leu Gly Thr Pro Thr Arg Glu		
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Ile Lys Ala His Pro Trp Thr Lys Val Phe Arg Pro Arg Thr Pro Pro					
gag gca att gca ctg tgc agc cgt ctg ctg gag tac aca cct acc gcc	315	320	325		1013
Glu Ala Ile Ala Leu Cys Ser Arg Leu Leu Glu Tyr Thr Pro Thr Ala					
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ttc aac ttt acc act caa gaa ctg tca agt aac ccc cct ctg gcc acc	360	365	370	375	1157
Phe Asn Phe Thr Thr Gln Glu Leu Ser Ser Asn Pro Pro Leu Ala Thr					
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Ile Leu Ile Pro Pro His Ala Arg Ile Gln Ala Ala Ala Ser Pro Pro					
gcc aac gcc aca gca gcc tca gat act aat gct gga gac cgt gga cag	395	400	405		1253
Ala Asn Ala Thr Ala Ala Ser Asp Thr Asn Ala Gly Asp Arg Gly Gln					
acc aat aac gcc gct tct gca tca gct tcc aac tcc acc tga	410	415	420		1295
Thr Asn Asn Ala Ala Ser Ala Ser Ala Ser Asn Ser Thr *					
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<211> 420					
<212> PRT					
<213> Mus musculus					
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<223> Primer used to amplify GSK

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<213> Artificial Sequence

<220>
<223> Primer used to amplify GSK

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